Why reading paper:

widely cited, foundation work in sketch recognition, nicely written paper

About:

Statistical Single Stroke recognizer for gesture recognition based on features.
	power of a single stroke
	single stroke avoids segmentation problem

gestures different from characters

15 samples adequate

interesting demo

features:

\[ f_1,f_2 = \text{angle from starting point} \]

\[ f_3 = \text{length of diagonal of bounding box} \]

\[ f_4 = \text{angle of diagonal} \]

\[ f_5 = \text{distance from start point to end point} \]

\[ f_6,f_7 = \text{angle from start point to end point} \]

\[ f_8 = \text{total stroke length} \]

\[ f_9 = \text{total rotation (from start to endpoint)} \]

\[ f_{10} = \text{absolute total rotation (how much does it move around)} \]

\[ f_{11} = \text{rotation2 - sharpness (sort of a variance)} \]

\[ f_{12} = \text{max distance in short time} \]

\[ f_{13} = \text{total time} \]

high rejection rate 0.95

high accuracy

eager recognition!!

Questions:

1) What are some of the advantages of the features? What was the most interesting thing in the paper?

2) Can/are/do we want any of these features be incorporated into our recognizers?
3) What can we take from this work? What does this architecture teach us? (perhaps same question)

4) What are the problems in the paper (if any)?

5) What is lacking from this architecture? (multi-stroke) (Why is research not completed in this subject by this work?)

6) What about the architecture prevents us from obtaining this?

7) Could a multi-stroke recognition engine be built from this?

8) What if we made small modifications to the architecture, what then, and what modifications?

General Versions of the Above Questions:

1) What are the advantages of this work? What did you find interesting (in a positive sense) in the paper?

2) What can we take from this work? What do we learn? What can be incorporated into our own work?

3) What are the problems of the paper (if any)?

4) What is lacking from the work? Why does this work not to be the final research in this subject?

5) What about the method causes this lack? Is there a fundamental reason?

6) Could incremental changes fix this lack? If so, what changes?

The above questions are helpful in that they should spark interesting conversation, encourage forward thinking in research, and provide good information for a previous work section.
The questions below are helpful in that they should spark interesting conversation, encourage forward thinking in research, and provide adequate information for a previous work section.

1) What are the advantages of this work? What did you find interesting (in a positive sense) in the paper?
   - It works. It seems arbitrary. No shape information.

2) What can we take from this work? What do we learn? What can be incorporated into our own work?
   - 2-phase interaction = easier recognition
   - But high implications for incorrect recognitions
   - Ability to manipulated = but we haven't yet.

3) What are the problems of the paper (if any)?
   - Shape ambiguity = possibly 2 shapes have same features,
     but different shape vectors.

4) What is lacking from the work? Why does this work not to be the final research in this subject?
   - Stylus - single stroke - testing off population more human.
   - Reasoning for gestures.
   - Chris long's work to help create gestures to prevent 2 shapes.

5) What about the method causes this lack? Is there a fundamental reason?
   - Multistroke fundamental.

6) Could incremental changes fix this lack? If so, what changes?
   - Testing.